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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,815	07/09/2003	William L. Mehlhorn	010121-9928	1441
23409	7590	10/15/2004	EXAMINER	
MICHAEL BEST & FRIEDRICH, LLP			IP, SHIK LUEN PAUL	
100 E WISCONSIN AVENUE			ART UNIT	
MILWAUKEE, WI 53202			PAPER NUMBER	

2837

DATE MAILED: 10/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,815

Applicant(s)

MEHLHORN, WILLIAM L.

Examiner

Paul Ip

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-57 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/14/036</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 10/14/2003 in compliances with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-57 are rejected as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. Claims 1, 6, 24, 29, 38, and 47 recite "a circuit clamp", "a scalar", "a current sensor", and "decision logic" without the recitation of any clear structural relationship or connection to particularly point out and distinctly claim the subject matter that allow one of ordinary skill in the art to be able to understand as how these recited elements are connected as shown in figures 2-6 of the invention. The claims further recite "a Zener diode", "a timer", "a triac", and "a capacitor" without the recitation of any structural relationship with the other recited elements is considered confusing, vague, and indefinite.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Bordonaro (3,652,912), or Bach (5,592,062), or Dropps et al (5,296,795).

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As far as the claims are understood, the patent to Bordonaro disclose a motor controller for controlling a polyphase bidirectional control system suitable for use with AC motors. Bordonaro shows in figures 1 and 2 switches (32, 34), a controller (26), and power supplies (16, 18) including a circuit clamp (20, 22). Bordonaro shows in figure 2 a zener diode ZD1 for controlling the threshold voltage of the switches Q24 and Q5. Bordonaro also shows in figure 1 level detectors (12, 14) for detecting the zero crossing signals.

The patent to Bach discloses a controller for AC induction motors. Bach shows in figure 1 an electronic switch 162, a controller 1000, and a power supply including a circuit clamp 2000. Bach shows a triac switch 162, a capacitor 121, and zener diodes (126, 129). The patent to Dropps et al discloses a method and apparatus for starting capacitive start induction run and capacitive start capacitive run electric motors. Dropps et al show in figure 1 a motor 14, a switch T1, a zener diode Z1, a zero cross detect 42, a pulse generate 44, and a controller. The zener diode Z1 and the capacitor C2 form a clamp circuit.

Claims 1-57 are not patentable distinct from these patents.

Citation of Pertinent References

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents/publications to Anderson et al (5,973,473), Lamaster (3,594,623), Langhorst (5,654,620), Vandevier et al (3,976,919), Ellis-Anwyl (4,021,700), Vandevier et al (4,000,446), Walker (5,754,036), Williamson et al (5,814,966), Rueckert (4,437,133), Freymuth (4,658,203), Herbert (5,245,272), Bogwicz et al (5,892,349), Krohn et al (5,076,761), Carrier (6,675,912) Takahashi et al (5,444,354), Fowler et al (5,618,460), Watrous (3,596,158), Ettes et al (5,736,884), Zick et al (6,236,177), Hirshi et al (6,700,333), and Avery (4,303,203), disclose motor control systems comprising a switch, a controller, and a power supply with a circuit clamp.

Customer Services Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Ip whose telephone number is (571)-272-1941. The examiner can normally be reached on Monday to Friday from 6:30 a.m. to 3:00 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin, can be reached on (571)-272-1207. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Paul Ip", with a stylized flourish at the end.

Paul Ip
Primary Examiner
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